

## **CHAPTER 5: CAPE COD ORAL RABIES VACCINATION PROGRAM**

### **A. Background**

Raccoon rabies entered Massachusetts in the fall of 1992 and quickly spread across the state. In 1993, the Massachusetts State Legislature provided funds for Tufts University School of Veterinary Medicine, in cooperation with the Massachusetts Department of Public Health (MDPH) and the Centers for Disease Control and Prevention (CDC), to establish the Cape Cod Oral Rabies Vaccination Program (CCORVP) for wildlife. Beginning in 2001, the USDA/APHIS/WS joined as a collaborating agency.

The objective of the wildlife vaccination campaign is to create a barrier of rabies vaccinated raccoons to prevent the spread of rabies to Cape Cod, thus reducing the risk of rabies exposure to people, pets, and wildlife in this heavily visited part of New England. The barrier has been effective in keeping terrestrial animals on Cape Cod rabies-free since the first oral vaccine distribution in 1994. (Rabies in bats exists throughout the Commonwealth, including Cape Cod.) The CCORVP is the longest running and one of the most effective rabies vaccine barrier programs in the United States.

### **B. Role of Tufts University School of Veterinary Medicine**

The CCORVP was formed when a coalition including MDPH, Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement (MDFWELE), Massachusetts Department of Food and Agriculture (MDFA), and Tufts University School of Veterinary Medicine (TUSVM) were brought together to discuss the feasibility of a vaccine campaign. TUSVM was chosen to develop a proposal to submit to the Massachusetts Legislature for funding. The project was funded in fiscal year 1993, with TUSVM as the program administrator with funding through MDPH. From the beginning, TUSVM has taken sole responsibility for the administration and implementation of the CCORVP.

In addition to creating a barrier of vaccinated raccoons to prevent the spread of rabies onto Cape Cod, the other objective of TUSVM is to collect and analyze information on all aspects of wildlife vaccination. Such data include information on animal distribution in the landscape, trap efficiency, vaccination rates across habitat types, seasonal influences on vaccination rates, seasonal influences on animal distribution and relative abundance, and species differences in distribution and vaccine contact.

TUSVM collaborates and coordinates its activities with USDA/APHIS/WS to ensure proper implementation of the oral rabies vaccination program and maximize USDA and TUSVM programmatic efficiency. Operational and research findings are reported to MDPH and the statewide Rabies Advisory Committee.

### **C. Description of Oral Rabies Vaccination Program**

Distributing bait units containing rabies vaccine throughout the target area creates the vaccine barrier. The baits, made partly of fishmeal, are specifically attractive to raccoons. Raccoons and other wildlife find the vaccine-containing bait, eat it, and become protected against the disease. The vaccine is effective in raccoons, fox, coyote

and opossum, but is not effective in skunks. New vaccines for both skunks and raccoons are under study, but such vaccines are probably several years away from licensure for field use. The vaccine has been shown to be very safe for wildlife and does not harm cats or dogs.

Once or twice a year, vaccine-bait units are distributed from cars and helicopters over undeveloped areas, with help from the Massachusetts State Police. Rabies vaccine was initially distributed in an 80 square mile area covering both sides of the Cape Cod Canal. Rabies disease in ground animals reached the vaccine barrier in June of 1995, and was stopped at the edge of the vaccinated area. Based on the program's success at halting the spread of rabies for two years, the vaccinated area was expanded in 1997. The size of the treated area was more than doubled to encompass a total of 170 square miles. As funding permits, and patterns of rabies cases in the area dictate, our goal is to expand the target area to maximize the vaccine barrier width. Achieving that goal will produce the added benefit of reducing the risk of rabies to the human, domestic animal, and wildlife populations of Massachusetts.

Over a dozen states are now conducting wildlife rabies vaccination programs to halt the spread or eliminate rabies. The CCORVP has served as a model for other states initiating wildlife rabies vaccination programs.

## **Attachments**

1. Guide to Rabies Post-Exposure Evaluation and Management
2. Flowchart: Management of Human Exposure to Suspect Rabid Animals
3. Rabies Post-Exposure Prophylaxis Schedule
4. Rabies Pre-Exposure Prophylaxis Guide
5. Advisory Committee on Immunization Practices (ACIP) Statement on Rabies Prevention
6. Recommendations for Petting Zoos, Petting Farms, Animal Fairs, and Other Events and Exhibits where Contact Between the Public and Animals is Permitted
7. Notice of Possible Exposure to Rabies and Quarantine Order
8. Rabies Protocol: Management of Dogs and Cats Exposed to Wildlife
9. Rabies Protocol: Management of Dogs and Cats Exposed to Other Domestic Animals
10. Rabies Protocol: Management of Dogs and Cats Which Expose Humans
11. MDPH, State Laboratory Institute, Virology Laboratory's Guidelines for Submission of Specimens for Rabies Testing
12. Useful Rabies Contact Information -Telephone Numbers and Web Resources
13. Compendium of Animal Rabies Prevention and Control